

REMARKS

Claims 1-24, as amended, remain herein.

Minor, editorial changes have been made in claims 2-7, 9-14 and 16-24.

Applicants respectfully request the Examiner to provide an initialed copy of PTO Form 1449 indicating receipt and consideration of references accompanying the Information Disclosure Statements filed November 23, 1999 and June 24, 2003.

1. Claims 1, 3-5, 8, 9, 13, 15-17, 20 and 21 were rejected under 35 U.S.C. §102(e) over Langlais U.S. Patent 6,091,932, Fig. 1.

The presently claimed transmission apparatus and method comprises a relay station located between the master station and the slave station, wherein such relay function is for modulating at the master station return frequency a demodulated portion of a first minute-power wave as a return signal, and for transmitting a return signal, thereby establishing a return transmission path between the relay station and the master station, as recited in applicants' claims 1 and 13.

Also, the presently claimed transmission apparatus comprises a relay station for transmitting a return signal, thereby establishing a return transmission path between the relay station and the master station; and for transmitting information about a relay station receiving frequency at which the relay station receives a signal from the slave station. This arrangement and corresponding method are nowhere disclosed or suggested in the cited reference.

Regarding the rejection of claims 1 and 13, the Office Action states that Langlais '932, Fig. 2, discloses RF modem 12 as allegedly corresponding to applicants' relay station 32. However, Langlais '932, column 8, lines 38-54, describes RF modem 12 as merely for merging a telephony signal and a data signal, and for passing the merged signal to the telephony head end modem 1 that is linked to the network manager 6. There is no relay station (or any relay-type apparatus) located between the master station and the slave station, wherein such relay station apparatus is for modulating at the master station return frequency a demodulated portion of a first minute-power wave as a return signal, and for transmitting a return signal, thereby

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establishing a return transmission path between the relay station and the master station, as recited in applicants' claims 1 and 13.

In contrast, the presently claimed transmission apparatus comprises a relay station located between the master station and the slave station, which are located apart by a distance that is longer than the reachable range of the minute-power wave, and the relay station is configured for amplifying attenuated waves that are received from the master station to extend the reachable range of the minute-power wave, so that the waves reach the slave station.

Further, the presently claimed relay station also is configured for previously transmitting the reception frequency that is to be selected by the relay station for receiving the signals from the slave station and differentiating frequencies on the forward path and return path to/from the relay station, thereby establishing a communication path that realizes a full-double communication, together with the master station configured to have a similar function.

The Langlais '932 relay station 12, shown in Langlais '932 Fig. 3, does not have the above-described functions, and therefore does not correspond to the presently claimed invention.

Further, the Office Action includes the statement that Langlais '932, Fig. 6, shows MUX DSP processor 73 and network manager processor 74 as allegedly corresponding to the presently claimed relay station and master station. Actually, Langlais '932, Fig. 6, shows the structure of an OFDM modem in which the MUX DSP processor 73 and the network manager processor 74 are contained in the same modem box and located extremely close to each other. Such an arrangement avoids the problem of attenuating the signals exchanged between these processors.

In contrast, the presently claimed relay station is located to amplify the minute power from the master station and retransmit the amplified signal to the slave station, so as to enable reception of signals despite the substantial separation between the master and slave stations. Such separation is affirmatively recited in applicants' claims as a separation distance longer than the reachable range of the minute-power

wave and the minute-power wave emitted from the master station. Such a minute-power wave cannot (without relay) reach the slave station.

Moreover, contrary to the statement in the Office Action at page 3, second paragraph, Langlais '932 does not describe establishing a transmission path by previously transmitting the receiving frequency to the other end so that it can receive a response signal from the other end, i.e., Langlais '932 does not disclose:

 said relay station is ... for transmitting a return signal, thereby establishing a return transmission path between the relay station and the master station;... for transmitting information about a relay station receiving frequency at which the relay station receives a signal from the slave station;

as recited in claims 1 and 13. Actually, Langlais '932, column 10, lines 18-32, cited by the Office Action as allegedly disclosing such establishing a return path, does not say anything about transmitting a return signal comprising transmitting information about a relay station receiving frequency, which necessarily would precede reception of a transmission from the slave station. There is no such

disclosure in Langlais '932. Therefore, Langlais '932 does not establish a transmission path by transmitting receiving frequency information prior to the slave station sending a communication to the relay station. Such structure and such sequence of communicating is not present in Langlais '932.

Regarding claims 3 and 15, this limitation is also recited as:

detecting, in advance of use, frequencies for video transmission within a reception band of the RF tuner;

registering the detected frequencies, as a communication frequency list, in both of the transmitter and the receiver;

which again is directed to previously supplying reception frequencies before a specific communication, i.e., "detecting, in advance of use" such frequencies and registering them as a communication frequency list at both ends of the communication. Langlais '932 does not disclose any such "handshaking," so to speak, at both the transmitter and receiver prior to transmission, as recited in applicants' claims.

Moreover, the Office Action suggests that Langlais '932 discloses a transmitter having an RF converter that generates a

standard television signal. Actually, Langlais '932 discloses converting a signal to be transmitted up to a second IF signal of a standard television signal, which is not the same thing, and does not disclose converting a signal to be transmitted finally to a standard television signal.

Also, the Office Action suggests that Langlais '932 discloses an available frequency detection means, a detected frequency registration means, in combination with a spread spectrum communication means. Actually, Langlais '932 does not disclose a spread spectrum apparatus, but instead, discloses an OFDM communication means, which is known as a digital transmission method, and nothing is said about a spread spectrum apparatus. And regarding the available frequency detection means and detected frequency registration means, as discussed above herein, Langlais '932 does not disclose apparatus for detecting, in advance of use, frequencies for video transmission, and registering the detected frequencies, as a communication frequency list, in both of the transmitter and the receiver, as recited in applicants' claims.

For the foregoing reasons, Langlais '932 fails to disclose all elements of applicants' claimed invention, and therefore is not a proper basis for rejection under §102. And, there is no disclosure or teaching in Langlais '932 that would have suggested the desirability of modifying any portions thereof effectively to anticipate or suggest applicants' presently claimed invention. Claims 4 and 16, claims 5 and 17, claims 8 and 20, and claims 9 and 21, depend on claims 3 and 5, respectively, and are allowable for the same reasons described herein for claims 3 and 5. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

2. Claims 2, 6, 7, 14, 18 and 19 were rejected under 35 U.S.C. §103(a) over Langlais '932 and Oguro et al. U.S. Patent 6,282,366.

The Office Action admits that Langlais '932 does not disclose transmitting a control signal by superposing it on the video signal during the blanking period, and cites Oguro '366 for allegedly disclosing same. However, Oguro '366 does not provide the deficiencies of Langlais '932 described herein.

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Moreover, claim 2 depends from claim 1, claims 6 and 7 depend from claim 3, claim 14 depends on claim 13 and claims 18 and 19 depend from claim 15, and are allowable for the same reasons described herein for claims 1, 3, 13 and 15.

3. Claims 10-12 and 22-24 were rejected under 35 U.S.C. §103(a) over Langlais '932, Matsuda et al. U.S. Patent 6,282,366.

The Office Action admits that Langlais '932 does not disclose a transmission apparatus comprising ID storage, ID inquiry and ID registration, and cites Matsuda '366 as allegedly disclosing same. However, Matsuda '366 does not provide the deficiencies of claims 3 and 15 described herein.

Moreover, claims 10-12 depend from claim 3, and claims 22-24 depend from claim 15, and are allowable for the same reasons described herein for claims 3 and 15.

All claims 1-24 are now proper in form and patentably distinguished over all grounds of rejection cited in the Office Action. Accordingly, allowance of all claims 1-24 is respectfully requested.

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Should the Examiner deem that any further action by the applicants would be desirable to place this application in even better condition for issue, the Examiner is requested to telephone applicants' undersigned representatives.

Respectfully submitted,

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